



Research Paper

Economic analysis of arrival and price behaviour of rose and gerbera flowers in Gultekhad market Pune

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ABSTRACT : In India, floriculture is emerging as an important commercial crop. A lot of importance has been given to this sector due to its multiple uses, satisfying the aesthetic needs of the people, creating more employment, ensuring higher rate of returns to rural people and facilitating earning more foreign exchange. More specifically, they are being used as raw materials in the manufacture of essence, perfumes, medicines and confectioneries for direct consumption by the society. Agriculture supply is uncertain and this uncertainty in supply leads to fluctuations in prices. The broad objective of study was to examine price behaviour of major flowers in Pune. The data on arrivals and prices of flower crop under study for the period of 10 years *i.e.* from 2005-14 were used. The data were collected from the records of Gultekhad market Pune. The results indicated that annual growth trend was maximum during 2011 -12 in areas and production of loose flowers. Annual growth trend was maximum during 2009 -10 in production of cut flowers. The study indicated positive percentage change in prices of gerbera (+15.25%) and negative in prices of roses (-22.83). Maximum negative percentage change was observed in case of arrivals of gerbera. Trends in arrivals and prices of rose in gultekhad market shows decreasing trends from year 2005 to 2014. In case of gerbera decreasing trends was observed in arrivals and increasing trends in prices. Co-efficient of variation of real prices was found to be lowest in gerbera.

KEY WORDS : Arrival, Price, Behaviour of rose, Gerbera flowers

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INTRODUCTION :

In India, floriculture is emerging as an important commercial crop. A lot of importance has been given to this sector due to its multiple uses, satisfying the aesthetic needs of the people, creating more employment, ensuring higher rate of returns to rural people and facilitating earning more foreign exchange. More specifically, they are being used as raw materials in the manufacture of

essence, perfumes, medicines and confectioneries for direct consumption by the society.

As per National Horticulture Database published by National Horticulture Board, during 2012-13 the area under floriculture production in India was 232.74 thousand hectares with a production of 1.729 million tonnes loose flowers and 76.73 million tonnes cut flowers. Floriculture is now commercially cultivated in several states with West Bengal (32%), Karnataka (12%) Maharashtra (10%),

having gone ahead of other producing states like Madhya Pradesh, Gujarat, Punjab, Haryana, Andhra Pradesh, Orissa, Jharkhand, Uttar Pradesh and Chhattisgarh.

The price of flowers assumes great significance for producers as well as consumers point of view. It is said that prices are mirror of economy of the country. The wild fluctuations affect the farmer's capacity of making sustained efforts for increasing production. This fluctuation in prices of agricultural commodity is greatest obstacle in the way of agricultural development. Agricultural arrivals and prices, therefore, exercise a dominant influence on agricultural economy of our country. The purpose of the present study is to examine the behaviour and pattern of fluctuations in prices and arrivals of flowers for the study in Agriculture Produce Market Committee in Pune.

Objectives of study :

The present study has been undertaken with the following objectives :

–To study the arrivals and prices behaviour of rose and gerbera flowers crop in Gultekadi market Pune.

–To study the co-efficient of variation of arrivals and prices behaviour of rose and gerbera flowers crop in Gultekadi market Pune.

MATERIALS AND METHODS :

The present study has taken into consideration the arrivals and prices of rose and gerbera flower crop from APMC of Pune district for the period of 10 years *i.e.* 2005 to 2014. Data was analyzed statistically to achieved the objectives of the study.

General model used for analysis :

Trend analysis by least square method

The equation of the straight line trend is $Y = a + b X$

$$a = \frac{\sum Y}{N} \quad b = \frac{\sum XY}{\sum X^2}$$

where,

Y = Arrivals and prices

X = Year

N = Number of years

a = Constant

b = Slope

$$\text{Standard deviation } (\sigma) = \sqrt{\frac{\sum x^2}{N}}$$

where, $x = X - \bar{X}$

$$\text{Co-efficient of variation} = \frac{S.D}{\bar{X}} \times 100$$

RESULTS AND DATA ANALYSIS :

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Area and production of flowers in India :

The area and production of flowers in India is shown in Table 1. The area and production shows increasing trend from year 2006 – 07 to 2012 – 13, except 2012 – 13 shows negative growth in area. Maximum annual growth trend was observed during 2011 -12 in area and production.

Trends in arrivals and prices of rose and gerbera flowers in Pune market :

The study of trend in arrivals and prices of rose and gerbera are as important as cut flower crop. It is important item of an economy any distortion in agricultural

Table 1 : Annual growth trends of area and production of flower crops for last seven years (2006 – 07 to 2012 - 13) (in per cent)
(A: Area in '000Ha, P: Production in '000 MT)

Year	Area	Annual growth trends (%)	Production (Loose)	Annual growth trends (%)	Production (Cut)	Annual growth trends (%)
2006 - 07	144	-	880	-	37175	-
2007 - 08	166	15.27	868	-1.36	43654	17.43
2008 - 09	167	0.59	987	13.71	47942	9.82
2009 - 10	183	9.58	1021	3.44	66671	39.07
2010 - 11	191	4.37	1031	0.98	69027	3.53
2011 - 12	254	34.55	1652	60.23	75066	8.75
2012 - 13	233	-8.26	1729	4.66	76732	2.22

(Source: NHB Report 2012 - 13)

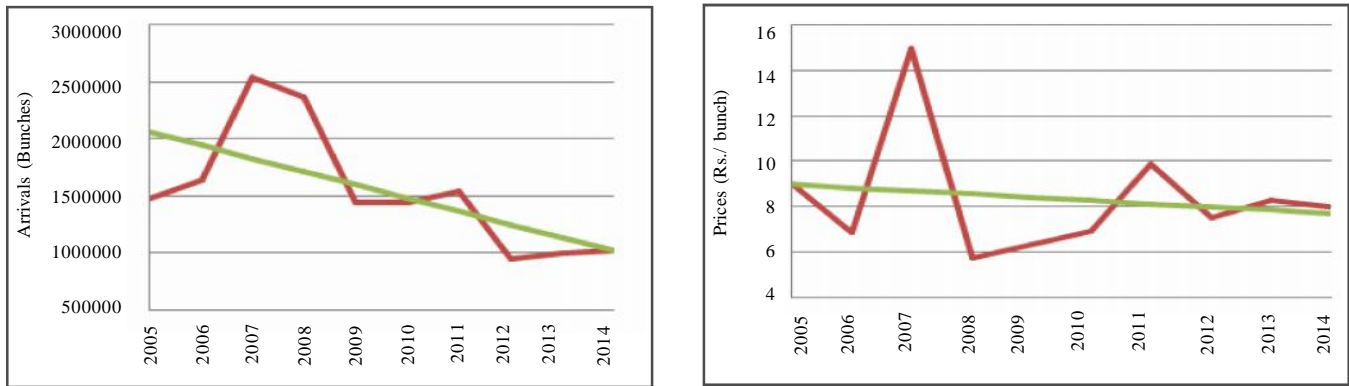


Fig. 1 : Trends in arrivals and prices of the rose in Gultekhadi market Pune for the year 2005 to 2014

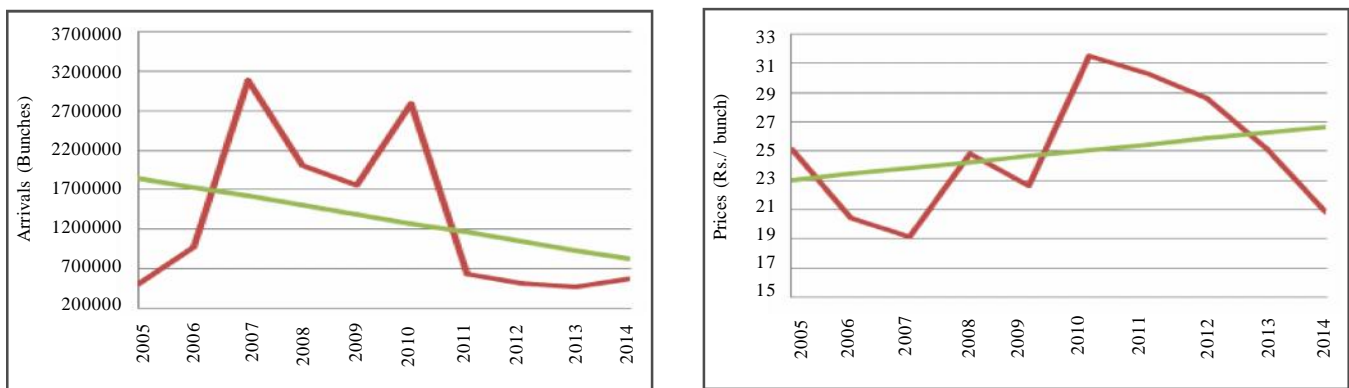


Fig. 2 : Trends in arrivals and prices of the gerbera in Gultekhadi market Pune for the year 2005 to 2014

Table 2 : Trends in arrivals and prices of rose and gerbera in Gultekhadi market Pune for the year 2005 to 2014

Years	Rose		Gerbera	
	Arrivals (Bunches)	Prices (Rs. / Bunche)	Arrivals (Bunches)	Prices (Rs. / Bunche)
2005	1477041	9	509081	25.11
2006	1637486	6.83	977129	20.42
2007	2530279	14.92	3085181	19.17
2008	2366495	5.75	2004885	24.81
2019	1437561	6.33	1764535	22.66
2010	1435050	6.92	2791310	31.5
2011	1533665	9.88	640183	30.26
2012	942120	7.5	516808	28.65
2013	998346	8.25	478655	25.12
2014	1018209	8	581165	20.82
% Change	-47.58	-22.83	-65.51	+15.25

Table 3 : Co-efficient of variance

Flower crop	Arrivals		Prices	
	SD	CV (%)	SD	CV (%)
Rose	512037.20	33.30	2.49	29.85
Gerbera	952955.10	71.39	4.01	16.15

prices leads to disturbing of the whole price structure. Prices may rise faster at time or may fall rapidly due to a temporary imbalance of supply and demand. Both sharp rise and precious fall in agricultural prices have dangerous potentialities. One of the major factors responsible for temporal rise in prices is inflation. Estimate of trend in arrivals and prices are given in Table 2.

Table 2 of trends in arrivals and prices of rose and gerbera flowers in Pune market shows that, the percentage change is the ratio of difference between averages of last 3 years *i.e.* 2012 to 2014 over initial 3 years *i.e.* 2005 to 2007 have been worked out. It shows that there is positive change (+15.25%) in prices of gerbera and negative (-22.83) in prices of roses. In case of arrivals of rose (-47.58) and gerbera (-65.51) it shows negative change. Maximum negative change is observed in case of arrivals of gerbera.

From Fig. 1 and 2 it is clear that trends in arrivals of rose in gultekhadi market shows that, there is decreasing trends from year 2005 to 2014. In case of price it shows decreasing trends for year 2005 to 2014.

Co-efficient of variation is 71.39 per cent in arrivals of gerbera which is more than rose *i.e.* 33.30 per cent. (Table 3) co-efficient of variation in prices is more for rose (29.85 %) as compared to gerbera crop (16.15 %). Same result is observed with the calculation of standard deviation. Similar work related to the present investigation was also carried out by Kaur *et al.* (2005) on tomato, Mali *et al.* (2002) on oilseeds and Prabha (1985) on cereal and the results found were more or less similar to the present investigation.

Conclusion :

Following general conclusions emerge from the present study:

- There was positive change (+15.25%) in prices of

gerbera and negative change (-22.83) in prices of roses. In case of arrivals of rose (-47.58) and gerbera (-65.51) it shows negative change. Maximum negative change is observed in case of arrivals of gerbera.

- Trends in arrivals and prices of rose were shows decreasing trends for year 2005 to 2014.
- Trends in arrivals of gerbera were show decreasing trends and increasing trend in prices during years 2005 to 2014.
- Co-efficient of variation of arrivals was found to be highest in gerbera crop as compared to rose.
- Co-efficient of variation of real prices was found to be lowest in gerbera crop.

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LITERATURE CITED :

- Hand Book on Horticulture Statistics (2014).
- Indian Horticulture Database (2013). National Horticulture Board.
- Kaur, Lavleen, Dhaliwal, Tejinder, Rangi, P. S. and Singh, Nirmal (2005). An economic analysis of tomato arrivals and price in Punjab. *Indian J. Agril. Mktg.*, **19** (3) : 61-67.
- Mali, B.K., Shendage, P.N., Bhosale, S.S. and Kasav, D.V. (2002). Trends in arrivals and prices of important oilseeds in selected regulated markets of western Maharashtra. *Indian J. Agril. Mktg.*, **16** (3): 124-125.
- Prabha, T. (1985). Structure and behaviour of cereal prices in Tamil Nadu. *Indian J. Agril. Econ.*, **40** (3) : 407-408.

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